

## Stages and Delaware Special Education

### OVERVIEW

Stages includes two major software components: (a) informal assessment software and (b) curriculum software. Stages informal assessment software is instructional in nature, providing activities with constructive feedback and opportunities for the learner to explore and choose. Stages curriculum software is a collection of interactive daily instructional programs appropriate for learners at each Stage.

Stages software enhances Delaware's special education assessment because:

- 1. Stages aligns with the Delaware General Standards in Reading, Writing and Math.**
- 2. Stages generates evidence of learner performance for DAPA by documenting activities.**
- 3. Stages provides learners with the opportunity for increased independence.**
- 4. Stages assists the learner's IEP team with selecting assistive technology and assessment tools.**

#### **1. Stages aligns with the Delaware General Standards in Reading, Writing and Math.**

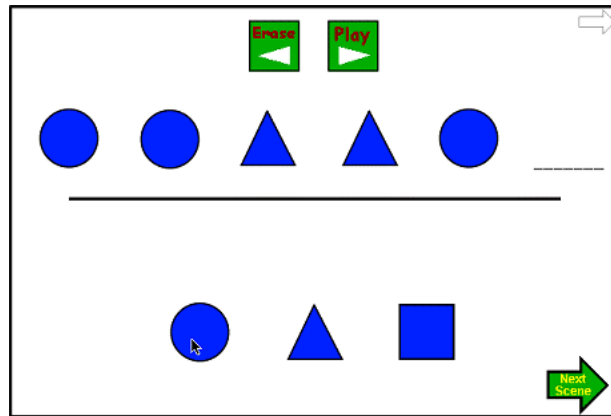
Stages also ensures meaningful and effective access to general curriculum areas for learners who require modifications in order to participate in statewide regular assessment. The learner's IEP team can use Stages to help determine if alternate assessment is appropriate by providing informal benchmarks of learner progress in Mathematics, Reading, and Writing general curriculum areas. The last section, "How Stages Correlates with Delaware Content Standards," shows how Stages activities help the learner gain access to the general curriculum.

#### **2. Stages generates evidence of learner performance for DAPA by documenting activities.**

Stages activities can give the learner opportunities to demonstrate many of the performance indicators in the Delaware Alternate Portfolio Assessment [DAPA]. During Stages software activities, the instructor can print directly from any screen to capture a learner-generated product as a benchmark. At the end of each activity, a report with instructional data about the time spent, choices made, response accuracy or work product, input method, prompt type, and time/date stamp are displayed with the learner's name. The instructor may wish to then print that screen, save the screenshot, or save the information as a text-format electronic file as examples of student work for evidence collection.

Observation guidelines and forms in the Stages kits help the instructional team make the most out of an activity session. The data-gathering features of the software enable the observer to focus on noting the learner's behavior and thinking-out-loud responses. Two adults from the instructional team can work together: one adult can encourage the learner and the other can note valuable data about behaviors without being noticed by the learner. Alternatively if a video or still camera is available, it may be directed at the learner and the computer monitor to discreetly record interactions and other behaviors while one adult coaches. During the sessions, the learner will be less conscious of her performance being recorded, making her responses more candid.

Over time, the collected data will provide evidence that the instructional team needs to build a complete picture of the learner's skill achievement. Please refer to the section of this document entitled "How Stages Correlates with Delaware Functional Skills Curriculum" for detailed matching to the functional standards.



Example screen shot from Stage Four: Create Patterns

**3. Stages provides learners with the opportunity for increased independence.**

The feedback in Stages activities is encouraging and rewarding, providing a relaxed setting for exploring topics and demonstrating skills with minimal supervision. Many Stages activities include accessible choice-making opportunities. Functional skills activities include real-life community settings.

**4. Stages assists the learner's IEP team with selecting assistive technology and assessment tools..**

An objective of Stages software is to provide several options for input methods and other settings so that the learner's instructor, parents, and others in the IEP team can determine his ideal learning and communication environment. Different devices, auditory feedback, speeds and prompts are among the variables.

## SUMMARY

Stages augments the Delaware assessment cycle for special education. The Stages software is a comprehensive benchmark tool to assist the instructional team in collecting valuable information on learner skill achievement, determine assessment strategy, and discover the learner's abilities and thinking approach.

## How Stages Correlates with the Delaware Functional Life Skills Curriculum<sup>1</sup>

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### Key Concepts and Sample Performance Indicators

#### COMPONENT: RECEPTIVE COMMUNICATION SKILLS

**Standard F1:** The student will develop and maintain the ability to attend to, respond to, and utilize information from others.

**Key Concepts:**

The student will:

- (1) attend/orient to others
- (2) follow requests/directions
- (3) access, organize, evaluate, and use information through some mode to make choices

***Related Stages Assessment Activities:***

Activities in every Stage provide the learner with opportunities to attend to spoken, written, or multisensory instructions. The observation forms at each Stage help the instructor record the learner's behavioral response to instructions.

*Stage One: All Activities*

*Stage Three: All Activities*

*Stage Six: All 'Explore' Activities*

- Stage One includes short animations to determine the learner's ability to attend to an activity and use an appropriate input device. The activities present a visual, auditory, or multisensory prompt that encourages the learner to continue activating the device.
- Stage Three gives the learner an opportunity to independently choose desired activities and responses to questions.
- Stage Six *Explore* activities give the learner an opportunity to use an input device to select items on the screen to hear and/or read information about it.

#### COMPONENT: INTERACTIVE COMMUNICATION SKILLS

**Standard F3:**

The student will develop and use effective and appropriate interactive communication skills.

**Key Concepts:**

The student will:

- (1) show emotion
- (3) take turns

***Related Stages Assessment Activities:***

Observation Forms in every Stage provide the IEP team with guided opportunities to record learner behavior and interactions such as emotional response.

*Stage Five: Problem Solving: Tic-Tac-Toe*

- The learner demonstrates turn-taking when playing this classic game with the computer or with a classmate.

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<sup>1</sup> Information from Delaware Functional Life Skills Curriculum, July 2000.

Source: [http://www.doe.state.de.us/Standards/FuncLifeskills/func\\_lifeskills\\_stdndr.pdf](http://www.doe.state.de.us/Standards/FuncLifeskills/func_lifeskills_stdndr.pdf) (Accessed July 16, 2002).

**COMPONENT: MOBILITY**

**Standard F4:**

To the degree possible, the student will develop and maintain some form of mobility.

**Key Concepts:**

The student will:

(5) control voluntary body movements

***Related Stages Assessment Activities:***

*Stage One: Press and Hold, Press and Release*

- Stage One activities are simple animations activated by an appropriate input device. The learner demonstrates control of the number of presses or clicks in *Press and Release*. *Press and Hold* activities allow the learner to show control of the length of presses.

**COMPONENT: FUNCTIONAL READING**

**Standard F16:** The student will interpret and use printed symbols that are encountered in everyday life situations and will demonstrate comprehension of their meaning.

**Key Concepts:**

The student will:

- (1) recognize sight words, including community words and survival words
- (2) analyze words by sight, sound, and context
- (3) demonstrate comprehension skills
- (4) read pictures/symbols
- (5) demonstrate decoding skills
- (6) gather information
- (7) gain meaning/enjoyment from literature and/or multi-media experiences

***Related Stages Assessment Activities:***

*Stage Two: Nouns, Verbs, Attributes*

*Stage Five: Reading: Meaning*

*Stage Six: Stories: Cody, Mitchell, Meg, Adam, Ryan*  
*Explore and Assess: Recognizing Signs*

- Stage Two activities expose the learner to vocabulary using familiar objects such as animals and vehicles at three different levels of graphic abstraction: photograph, drawing, and symbol (from the Mayer-Johnson PCS libraries).
- Stage Five *Meaning* presents the learner with Dolch words. The learner selects the picture in a scene that illustrates the meaning of the word.
- Stage Six *Stories* are self-paced activities with short passages about real people performing activities of daily living. The learner can follow text on the screen as it is spoken (Multisensory) or read silently (Visual).

**COMPONENT: FUNCTIONAL WRITING**

**Standard F17:** The student will demonstrate the ability to express himself/herself and/or to relay a message graphically.

**Key Concepts:**

The student will:

- (1) recognize the alphabet
- (2) form basic symbols
- (3) form words
- (4) use picture/symbols/words

**Related Stages Assessment Activities:**

*Stage Four: Reading Readiness: Letter ID*

*Stage Seven: Making Words: Copy Words, High Frequency Words, Building Rhymes*  
*Making Sentences: Building Sentences*

- Stage Four *Letter ID* presents the learner with letters using simple animations. The learner identifies upper and lower case letters when presented with prompts.
- Stage Seven *Copy Words* speaks a word and/or shows the word to the learner. The learner then types the word using regular or on-screen keyboard. *High Frequency Words* and *Building Rhymes* asks the learner to complete sentence captions. *Building Sentences* gives the learner a chance to form messages without requiring keyboard skills.

**COMPONENT: FUNCTIONAL MATH**

**Standard F18:** The student will demonstrate the ability to use math and science skills to solve problems using real-life experiences.

**Key Concepts:**

The student will:

- (1) handle and use money
- (3) manage time
- (4) recognize numerals
- (5) compute numbers
- (10) use telephones
- (12) solve functional word problems

**Related Stages Assessment Activities:**

*Stage Four: Math Readiness: Number ID, Counting*

*Stage Five: Math: Math Facts (+, -, x, ÷), Word Problems (+, -, x, ÷), Geometry*

*Stage Six: Explore: Money, Time*

*Assess: Money Names, Counting Money, Money Equivalents, Telling Time*

- Stage Four *Number ID* presents the learner with a telephone or an elevator scene and includes numbers from 0 to 10. *Counting* asks the learner to count up to 10 objects on the screen and includes a number line.
- Stage Five *Math Facts* activities include addition and subtraction with and without regrouping; and a number line to simplify answer input. *Word Problems* provides on-screen graphics to help the learner compute the answer for some problems. *Geometry* includes computation of perimeter, area and volume.
- Stage Six activities include realistic scenarios to help the learner connect money and time concepts with daily living.

## How Stages Correlates with the Delaware Functional Life Skills Curriculum<sup>2</sup>

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### English Language Arts Performance Indicators

#### LANGUAGE CONVENTIONS

Students will be able to:

**K.102** write their own first and last name.

#### ***Related Stages Assessment Activities:***

*Stage Seven: Making Words: Copy Words*

- Using *Copy Words*, the learner can demonstrate the ability to write their own name using an appropriate device. The learner can type it after it is spoken, or copy it while looking at an example.

**K.103** write using invented/temporary spelling, demonstrating some letter/sound associations (**1.103** for most sounds in words).

**K.104** use conventional spelling for familiar words (**2.102** use correct spelling for familiar words).

**1.104** use correct spelling for simple words with regular spelling patterns.

**1.105** capitalize the first word in a sentence and the pronoun "I" (also **2.105** and **3.105**).

**1.106** use period and question marks correctly (**2.106** and exclamation marks).

**2.101** recognize words that are misspelled.

**2.103** write using an increasing percentage of conventional spellings.

**3.106** use correct subject verb agreement and noun pronoun agreement.

**1.107** use appropriate spacing between words and sentences.

#### ***Related Stages Assessment Activities:***

*Stage Seven: Making Sentences: Building Sentences*

*Making Words: Copy Words*

*Making Sentences: Writing Sentences, Spelling and Grammar*

- *Building Sentences* provides the learner with a word wall (three grade levels) in order to demonstrate knowledge of word usage and grammar with the aid of text-to-speech.
- *Copy Words* and *Writing Sentences* allow the instructor to design activities present the learner a word, prompt or sentence. The learner can then enter a response. *Spelling and Grammar* is a collection of different activities including: Spelling, Homonyms, Capitalization, Noun-Verb Agreement, Pronoun Use, Word Order, and a Custom option. Using the Custom option, the instructor can create a custom list that includes proofreading or the learner's most familiar words.

**1.101** use complete sentences (**3.104** varied in length and structure).

#### ***Related Stages Assessment Activities:***

*Stage Seven: Making Sentences: Building Sentences*

*Making Sentences: Writing Sentences*

- *Building Sentences* includes text-to-speech capability so that the learner can produce a form of verbal expression, with or without the aid of an accessible on-screen keyboard.
- *Writing Sentences* is an unstructured activity giving the learner the chance to write any sentence independently or with guidance from the instructor.

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<sup>2</sup> Information from Delaware Teachers' Desk Reference.

Source: [http://www.doe.state.de.us/DPIservices/Desk\\_Ref/ddf\\_k5\\_1.pdf](http://www.doe.state.de.us/DPIservices/Desk_Ref/ddf_k5_1.pdf) (Accessed July 16, 2002).

## EXPRESSIVE WRITING

Students will be able to:

**K.106** use drawings with labels (enhanced by students' oral language) to reveal self and share experiences.

**K.107** use oral language to tell the story depicted in drawings.

**K.108** use details in their drawing (and in the accompanying oral language) to develop the text.

### ***Related Stages Assessment Activities:***

*Stage Seven: Making Sentences:* Building Sentences, Writing Sentences  
*Making Stories*

- *Building Sentences, Writing Sentences* and *Making Stories* are accessible by many input devices, such as touchscreen, mouse dwell, alternative keyboard and switch. The text-to-speech capability gives the learner an opportunity to 'play back' written work to share with others. *Making Stories* gives the learner a chance to use a photograph or other graphic imported as a writing prompt.

## ORAL COMMUNICATION

Students will be able to:

**K.118** share an idea on a topic.

### ***Related Stages Assessment Activities:***

*Stage Seven: Making Stories*

- Stage Seven *Making Stories* is accessible by many input devices, such as touchscreen, mouse dwell, alternative keyboard and switch. The text-to-speech capability gives the learner an opportunity to 'play back' written work for others to share.

## DECODING AND WORD RECOGNITION STRATEGIES

Students will be able to:

**K.122** identify upper- and lower-case letters.

**K.127** know the sounds associated with almost all consonants.

### ***Related Stages Assessment Activities:***

*Stage Four: Reading Readiness:* Letter ID, Letter Sounds

- The learner explores and demonstrates mastery of consonants and vowels and their sounds with the help of simple, yet engaging animated rewards. Stage Four *Letter ID* asks the learner to identify upper-case and lower-case letters. *Letter Sounds* asks the learner to distinguish similar-sounding letters.

**K.123** understand concepts of print (e.g., letter, word, sentence, left-to-right directionality, top-down, return sweep of print).

### ***Related Stages Assessment Activities:***

*Stage Six: Stories:* Cody, Mitchell, Meg, Adam, Ryan

- Stage Six *Stories* are short passages with photographs showing a person doing an activity of daily living. The learner can attend to the passages by listening to the audio without text, silently reading text captions, or following the text captions while the audio is played. The instructor can make note of the learner's behavior during the activity.

**K.124** understand concept of rhyme.

***Related Stages Assessment Activities:***

*Stage Five: Reading: Sounds*

- Stage Five *Sounds* highlights spelling patterns to emphasize the rhyming final sounds of words. The activity gives the learner short rhyming sentence pairs with simple animations. The screen displays text while audio plays. The learner then has a chance to identify the rhyming word pairs from a word wall.

**VOCABULARY**

Students will be able to:

**1.130** use context clues (from **DECODING AND WORD RECOGNITION STRATEGIES**).

**1.137** begin to use context clues and picture clues.

**2.142** use context and picture clues (also **3.143**).

***Related Stages Assessment Activities:***

*Stage Five: Reading: Meaning*

*Stage Seven: Making Words: High Frequency Words*

- *Meaning* is a collection of activities at 5 levels of difficulty. The learner is asked to read a word on the screen and identify the picture in a scene that illustrates the meaning of the word.
- The *High Frequency Words* activity presents a photo album with captions missing words from the following list: *the, of, and, a, to, in, is, you, that, and it*.

**K.129** begin to use picture clues to determine meaning of unknown words (also **K.128** identify 5-10 familiar words, [including their names]).

***Related Stages Assessment Activities:***

*Stage Two: Nouns, Verbs, Attributes*

*Stage Five: Reading: Context*

- Stage Two exposes the learner to language using illustrated short rhyming passages about familiar nouns such as animals and foods.
- Stage Five *Context* assesses the learner's ability to select the appropriate high-frequency word to fill in a blank spot in a sentence.

**K.131** recognize environmental print (e.g., stop sign, cereal boxes).

***Related Stages Assessment Activities:***

*Stage Six: Explore and Assess: Recognizing Signs*

- *Recognizing Signs* presents the learner with community signs to identify in the context of a realistic scenario.

**1.138** categorize pictures and words to develop concepts.

***Related Stages Assessment Activities:***

*Stage Three: Category Identification: Animals, Toys, Food*

- *Category Identification* activities in Stage Three utilize familiar objects in three levels of abstraction: photograph, drawing, and symbols from the Mayer-Johns PCS libraries.



**1.139** alphabetize words by first letter.

**2.144** alphabetize words by more than first letter.

***Related Stages Assessment Activities:***

*Stage Five: Reading: Letters (Alphabetization)*

- *Letters* asks the learner to alphabetize lists of words. The first set consists of five words with different first letters. The second set of words all have the same first letter. Some words in the set have the same second letter.

**DEMONSTRATE AN OVERALL UNDERSTANDING OF ORAL AND PRINTED TEXTS**

Students will be able to:

**1.156** follow simple oral and written directions.

**2.163 and 3.163** follow oral and written directions (also **3.163**).

**EXTEND MEANING AND BECOME AWARE OF THE MASS MEDIA**

Students will be able to:

**K.145** use oral directions to complete a task.

**1.164** use information to complete a task.

***Related Stages Assessment Activities:***

*Stage Five: All 'Explore' Activities*

*All Stages Activities*

- In Stage Five *Explore* activities, the learner attends to verbal and written instructions in order to learn how to solve problems or explore new vocabulary.
- Stages Activities that require learner input provide options for text (visual), spoken (auditory), or text-with-voiceover (multisensory) prompting and/or feedback.

## Mathematics

### Performance Indicators

#### ESTIMATION, MEASUREMENT, AND COMPUTATION

Students will be able to:

**K.203** describe and compare linear measures (e.g., longer/shorter, taller/ shorter, thick/thin).

**K.204** describe and compare volume/capacity (e.g., full/empty and more/less).

#### ***Related Stages Assessment Activities:***

*Stage Four: Math Readiness: Estimating*

- Stage Four *Estimating* gives the learner an opportunity to demonstrate understanding of relative quantity vocabulary such as ‘less/more’ or ‘big/medium/small.’

**K.208** recognize a penny, nickel, dime, and quarter from a set of coins.

**1.208** identify the value of a penny, nickel, dime, quarter, and dollar.

**1.209** identify the value of a group of pennies, a group of nickels, or a group of dimes.

**2.212** identify the value of a mixed set of coins with a value less than or equal to a dollar.

**2.213** read decimal notation when representing money.

#### ***Related Stages Assessment Activities:***

*Stage Six: Assess: Money Names, Counting Money, Money Equivalents*

- Stage Six *Money* activities relate money amounts to situations of daily living. Coins up to \$0.25 and bills up to \$20 are included.

**2.205** use standard and non-standard units of measure to estimate, measure, and compare length, height, width, and distance around.

#### ***Related Stages Assessment Activities:***

*Stage Five: Math: Geometry*

- Stage Five *Geometry* asks the learner questions about perimeter, area, and volume with the help of on-screen diagrams showing non-conventional units such as footsteps, tiles, and cubes.

**2.210** tell time to the nearest half hour.

#### ***Related Stages Assessment Activities:***

*Stage Six: Assess: Telling Time*

- Both analog and digital clocks are included in this activity. Realistic scenarios help the learner connect daily activities with the concept of time.

**1.210** know and use addition and subtraction fact families to 12. (e.g.,  $6 + 6 = 12$   $12 - 6 = 6$ )

**1.211** develop, use, and explain strategies

- to add and subtract single-digit and two-digit whole numbers
- to add 3 single-digit addends.

**2.214** know and use addition and subtraction fact families to 20. (e.g.,  $10 + 10 = 20$ ;  $20 - 10 = 10$ )

**3.214** know and use multiplication and division fact families through at least 25. (e.g.,  $5 \times 5 = 25$ ;  $25 \div 5 = 5$ )

#### NUMBER SENSE

Students will be able to:

**2.219** use addition and subtraction on whole numbers with understanding (**3.220** multiplication and division).

#### **Related Stages Assessment Activities:**

*Stage Five: Math: Math Facts (+, -, x, ÷), Word Problems (+, -, x, ÷)*

- *Math Facts* includes addition and subtraction with and without regrouping; multiplication of two-single-digit numbers; and division of single- and double-digit numbers without remainders.
- *Word Problems* gives the learner an opportunity to demonstrate mastery of each of the four operations with and without diagrams on the screen illustrating repeated addition or partitioning of sets.

**K.209** connect representations of numbers **less than 12** (e.g., concrete materials, drawings or pictures, mathematical symbols).

#### **Related Stages Assessment Activities:**

*Stage Four: Math Readiness: Number ID, Counting*

- *Counting* includes an accessible number line and pictures as virtual manipulatives. The number of objects ranges from 1 to 10. Stage Four *Number ID* includes numbers from 0 to 10 in the context of a telephone keypad and an elevator.

**3.221** show whole/part relationships.

**1.217** identify equal parts of a whole and equal parts of a set using halves.

**2.222** identify equal parts of a whole and equal parts of a set using halves, fourths, and eighths.

**3.223** identify equal parts of a whole and equal parts of a set using halves, thirds, fourths, sixths, eighths, and tenths.

#### **Related Stages Assessment Activities:**

*Stage Five: Math: Fraction ID, Fraction Application*

- Stage Five *Fraction ID* asks the learner to select the fraction that illustrates the ratio of selected pictures on the screen in relation to the total number of objects on the screen. The multiple choice questions ask the learner to distinguish fractions with like and unlike denominators. *Fraction Application* asks the learner to identify the correct number of sections of a whole object to represent a fraction or a fractional solution to a word problem.

- K.213** demonstrate an understanding of order relations for **whole numbers through 10**.  
**1.219** demonstrate an understanding of order relations for **whole numbers less than 100**.  
**2.224** demonstrate an understanding of order relations for **whole numbers less than 1,000**.  
**3.226** demonstrate an understanding of order relations for **whole numbers**.

***Related Stages Assessment Activities:***

*Stage Four: Math Readiness:* Number ID, Counting

*Stage Five: Problem Solving:* Number Guess

- Stage Five *Number Guess* asks the learner to deduce a mystery number by entering guesses according to feedback about its relative value, such as “That number is too high.” The range of numbers may be set for varying levels of difficulty by the instructor.

**SPATIAL SENSE AND GEOMETRY**

Students will be able to:

- K.214** name and sort figures by shape: square, rectangle, triangle, and circle.  
**1.221** name and sort plane figures by size and shape (**2.229** by common attributes; **3.231** using several attributes).

***Related Stages Assessment Activities:***

*Stage Four: Assess:* Shape ID

*Stage Five: Problem Solving:* Mystery Shape

- The learner demonstrates recognition of triangles, rectangles, circles, squares, and ovals in photographs and drawings in scenes and in isolation (blank background).
- Stage Five *Mystery Shape* applies the learner’s knowledge of shape attributes to a deductive reasoning game.

- K.215** demonstrate the relative position of objects (e.g., over, under, beside, between, outside, inside).

- 1.223** describe the relative position of objects (e.g., near, far, left, right).

***Related Stages Assessment Activities:***

*Stage Four: Math Readiness:* Spatial Relationships

- Stage Four *Spatial Relationships* gives the learner an opportunity to demonstrate understanding of relative location vocabulary such as ‘up/down’ or ‘behind/in front.’

**STATISTICS AND PROBABILITY**

Students will be able to:

- K.217** interpret data by simple comparisons (e.g., more, less, the same).

***Related Stages Assessment Activities:***

*Stage Five: Math:* Charts and Graphs

- The Stage Five *Charts and Graphs* activity includes bar graphs, line graphs, and pie charts. Familiar topics such as favorite snacks and animals help make the activities engaging for the learner.

**PATTERNS, RELATIONSHIPS, AND FUNCTIONS**

Students will be able to:

- K.218** recognize and reproduce simple visual, oral, and physical patterns.  
**1.229** recognize, create, and extend visual, symbolic, oral, and physical patterns.

***Related Stages Assessment Activities:***

*Stage Four: Math Readiness:* Explore Patterns, Continue/Fill-In Patterns, Create Patterns

- Stage Four *Patterns* activities introduce the learner to patterns using shapes, color, and sound, have them continue patterns, and allow them to generate their own patterns.